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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,939	03/19/2004	Roger Yonkoski	86353SHS	8223

7590 07/12/2005

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EXAMINER	
LAMB, BRENDA A	

ART UNIT	PAPER NUMBER
1734	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/804,939	YONKOSKI ET AL.	
	Examiner	Art Unit	
	Brenda A. Lamb	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,13,14,17-26,28-39,41- 42 and 45* is/are rejected.

7)☒ Claim(s) *12,15,16,27,40,43 and 44* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 20 and 33 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the

claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The recitation in dependent claims 4, 20 and 33 of the viscosity and wet thickness of the carrier layer does not further limit their respective independent claims reciting the same range for viscosity and wet thickness of the carrier layer.

Claims 1, 4-7, 13, 17, 20-22 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 90/01178 (Ruschak et al).

Ruschak et al teaches as shown in Figure 1 the method and system for preventing gas currents from impacting a coating process for a multi-slot slide bead coating apparatus, comprising: a) a multi-slot slide bead coating apparatus for forming a multilayer composite, the multi-slot slide bead coating apparatus including an inclined slide surface; b) a web for coating by the multi-slot slide bead coating apparatus; and c) a proximity shield placed in close proximity to both the web and the slide surface of the multi-slot slide bead coating apparatus such that gas currents do not disturb the multilayer composite on the slide surface. The Ruschak et al multi-slot slide bead coater is capable of applying a composite, which includes carrier layer having a viscosity and wet thickness dependent on the coating material supplied to the inlets of the multi-slot slide bead coater. Ruschak et al teaches that the proximity shield is substantially parallel to the slide surface while being close in proximity to both the web and the slide surface of the multi-slot slide bead coating apparatus. Ruschak et al teaches that the proximity shield is non-foraminous or solid (see page 6 lines 9-15). Thus Ruschak et al teaches every structural element of the apparatus set

forth in claims 1 and 17. With respect to claims 6-7 and 22, Ruschak et al teaches that the proximity shield is placed near the slide surface and forms a shield-to-slide surface gap having a height measurement range within scope of the claims (see page 7 line 34 to page 8 line 4). With respect to claims 13 and 28, Ruschak et al teaches that the proximity shield is constructed from a material within the scope of the claim (see page 6, lines 16-21). With respect to claims 4-5 and 20-21, Ruschak et al multi-slot slide bead coater is capable of applying a composite which includes carrier layer having viscosity and wet thickness within the scope of the claim dependent on the material supplied to the inlets of the multi-slot slide bead coater.

Claims 8-9 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 90/01128 (Ruschak et al).

Ruschak et al is applied for the reasons noted above. The Ruschak pivot 28 obviously enables one to move the proximity shield relative to the slide surface of the multi-slot slide bead coater such that the proximity shield does not contact the slide surface and the coating liquid thereon. The recitation of the range for the step set cutback angle set forth in claims 9 and 24 does not further define applicant's invention over Ruschak et al in that it is so broad that it reads on the lower part of the range, step set cutback angle of zero or no step cutback angle and ,therefore, Ruscak et al proximity shield as depicted in Figure 1 reads on the claimed proximity shield set forth in the above cited claims. Thus claims 8-9 and 23-24 are obvious over Ruschak et al.

Claims 14 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 90/01128 (Ruschak et al) in view of O'Connor.

Ruschak et al is applied for the reasons noted above. Ruschak et al fail to teach the proximity shield is semi-transparent and is constructed from a transparent plastic coated with a semi-transparent metal. However, it would have been obvious to construct the Ruschak et al proximity shield from a material having a degree of transparency since O'Connor teaches constructing the proximity shield of a multi-bead slide bead coating apparatus from a transparent material to facilitate visual observation of the flow of the coating composition. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the Ruschak et al proximity shield from a transparent plastic coated with semi-transparent metal since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and especially in view of Ruschak et al teaching proximity shield can be constructed from a variety of rigid materials including plastic or metal (In re Leshin, 125 USPQ 416).

Claims 30, 33-37, 41 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 90/01128 (Ruschak et al) in view of Bermel et al 2002/0160119.

Ruschak et al is applied for the reasons noted above. The same rejection applied to claims 1 and 17 is applied here. Ruschak et al fails to teach a carrier layer having properties within the scope of the claim. However, it would have

been obvious to provide in the Ruschak process a carrier material such as taught by Bermel et al having a viscosity within the scope of the claim and provide it in a manner such that the wet thickness for the taught advantages of the carrier layer–reduce coating artifacts. Thus claims 30, 33 and 45 are obvious over the above cited references. With respect to claim 35, Ruschak et al teaches that the proximity shield is placed near the slide surface and forms a shield-to-slide surface gap having a height measurement range within scope of the claims (see page 7 line 34 to page 8 line 4). With respect to claim 41, Ruschak et al teaches that the proximity shield is constructed from a material within the scope of the claim (see page 6, lines 16-21). With respect to claims 36-37, the Ruschak pivot 28 obviously enables one to move the proximity shield relative to the slide surface of the multi-slot slide bead coater such that the proximity shield does not contact the slide surface and the coating liquid thereon. The recitation that the range for the step set cutback angle in claim 37 does not further define applicant's invention over Ruschak et al in that it is so broad that it reads on the lower part of the range, step set cutback angle of zero or no step cutback angle, and ,therefore, Ruscak proximity shield as depicted in Figure 1 reads on the claimed proximity shield set forth in the above cited claims. With respect to claim 34, Ruschak et al fails to teach a carrier layer having properties within the scope of the claim. However, it would have been obvious to provide in the Ruschak process a carrier material such as taught by Bermel et al having a viscosity within the scope of the claim and provide it in a manner such that the wet thickness for the taught advantages of the carrier layer–reduce coating artifacts.

Claims 2-3, 10-11, 18-19 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 90/01128 (Ruschak et al) in view of Yapel et al 6,117,237.

Ruschak et al is applied for the reasons noted above but fails to teach a front face having structure within scope of the above cited claims. However, it would have been obvious to modify the Ruschak et al apparatus by extending the front face of the proximity shield such that it approximately matches a corresponding curvature of a backing roller in the multi-slot slide bead coating apparatus since Yapel et al shows in a coating apparatus using a shield having extended lip of the shield which proximity matches a corresponding curvature of a backing roller in bead coating for the taught advantages of the extending the shield to include lips which prevent premature drying of the bead thereby reducing non-uniform coating of the substrate. Further, it would have been obvious given the modifications of the Ruschak et al apparatus as discussed above with extended shield lips such as shown by Yapel et al to provide the radius of curvature of these lips such that they are within the scope of the claim to match the radius of curvature of a backing roller since the radius of the curvature the shield lips proximity matches a corresponding curvature of a backing roller in bead coating. Thus claims 10-11 and 25-26 are obvious over the above cited references. With respect to claims 2-3 and 18-19, Ruschak et al teaches the proximity shield is arranged in close proximity to the web but fails to teach the distance between the proximity shield and web is within the scope of the recited claims. However, it would have been obvious to modify the Ruschak

et al coating apparatus such that the distance between the proximity shield and web is within the scope of the claim since Yappel et al teaches at column 3 lines 50-60 arranging the proximity shield relative to the roller which supports the web such that distance is from 3 mm to 12 mm for the obvious reason to protect the area surrounding the application of coating to the web.

Claims 31-32 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 90/01128 (Ruschak et al) in view of Bermel et al 2002/0160119 and Yapel et al 6,117,237.

Ruschak et al is applied for the reasons noted above but fails to teach a front face having structure within scope of the above cited claims. However, it would have been obvious to modify the Ruschak et al apparatus by extending the front face of the proximity shield such that it approximately matches a corresponding curvature of a backing roller in the multi-slot slide bead coating apparatus since Yapel et al shows in a coating apparatus using a shield having extended lip of the shield which proximity matches a corresponding curvature of a backing roller in bead coating for the taught advantages of the extending the shield to include lips which prevent premature drying of the bead thereby reducing non-uniform coating of the substrate. Further, it would have been obvious given the modifications of the Ruschak et al apparatus as discussed above with extended shield lips such as shown by Yapel et al to provide the radius of curvature of these lips such that they are within the scope of the claim to match the radius of curvature of a backing roller since the radius of the curvature the shield lips proximity matches a corresponding curvature of a

backing roller in bead coating. With respect to claims 31-32, Ruschak et al teaches the proximity shield is arranged in close proximity to the web but fails to teach the distance between the proximity shield and web is within the scope of the recited claim. However, it would have been obvious to modify the Ruschak et al coating apparatus such that the distance between the proximity shield and web is within the scope of the claim since Yappel et al teaches at column 3 lines 50-60 arranging the proximity shield relative to the roller which supports the web such that distance is from 3 mm to 12 mm for the obvious reason to protect the area surrounding the application of coating to the web.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 90/01128 (Ruschak et al) in view of Bermel et al 2002/0160119 and O'Connor.

Ruschak et al and Bermel et al are applied for the reasons noted above. Ruschak et al fail to teach the proximity shield is semi-transparent and is constructed from a transparent plastic coated with a semi-transparent metal. However, it would have been obvious to construct the Ruschak et al proximity shield from a material having a degree of transparency since O'Connor teaches constructing the proximity shield of a multi-bead slide bead coating apparatus from a transparent material to facilitate visual observation of the flow of the coating composition. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the Ruschak et al proximity shield from a transparent plastic coated with semi-transparent metal since it has been held to be within the general skill of a worker in the art to select

a known material on the basis of its suitability for the intended use as a matter of obvious design choice and especially in view of Ruschak et al teaching proximity shield can be constructed from a variety of rigid materials including plastic or metal (In re Leshin, 125 USPQ 416).

Claims 12, 15-16, 27, 40 and 43-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to teach or suggest a system and method for preventing gas currents from impacting a coating process for coating a web using a multi-slot slide bead coating apparatus comprising a multi-slot slide bead coating apparatus; a web for coating by the multi-slot slide bead coating apparatus; and a proximity shield placed in close proximity to the web and slide surface of the multi-slot slide bead coating apparatus such that gas currents do not disturb the multi-layer composite on the slide surface wherein an edge guide creates a seal by mating with the proximity shield and the edge guide has an overhang portion which extends over a coating layer.

Applicant's arguments filed 4/04/2005 have been fully considered but they are not persuasive.

Applicant's argument that there is no disclosure in Ruschak et al of a non-foraminous proximity arranged in close proximity to the slide surface is found to be non-persuasive. Ruschak et al teaches at page 6 lines 9-15 that the proximity shield is non-foraminous or solid. Ruschak et al also teaches that the proximity

shield is substantially parallel to the slide surface while being close in proximity to both the web and the slide surface of the multi-slot slide bead coating apparatus.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (571) 272-1231. The examiner can normally be reached on Monday and Wednesday thru Friday with alternate Tuesdays off.

Brenda Adele Lamb

Brenda A Lamb
Examiner
Art Unit 1734